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FND 325

CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

REPORT NO. [redacted]

CD NO. 25X1

COUNTRY USSR (Moscow Oblast)

DATE DISTR. 5 July 1950

SUBJECT Moscow - Tushino Aircraft Engine Plant No. 500

NO. OF PAGES 5

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PLACE ACQUIRED 25X1 [redacted]

NO. OF ENCLS. (LISTED BELOW) 30

DATE OF INFO. [redacted] 25X1

SUPPLEMENT TO REPORT NO. 25X1 [redacted]

[redacted]

THIS IS UNEVALUATED INFORMATION

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1. Location

North of Moscow-Tushino airfield, south of the Shodnya Canal.

2. Designation

25X1 [redacted] Engine Test Plant.

3. Work Force

According to Soviet workers, about 1,500 PWs and approximately 10,000 civilian workers. Fifty PWs and a hundred Soviet workers were employed in the forge. Three 8-hour shifts were worked.

4. Plant Layout

(The figures in brackets refer to the items of Annex 1)

a. E-W dimension of the plant area was about one km, N-S dimension about two km.

b. A single-track spur entered the plant from the southeast, turning west in the plant area, thus dividing it into a northern and southern half.

c. Details on the installations in the northern plant section:

(1) Main workshop (see Annex 2), about 300x400 meters.

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The following departments were housed in this building:

forge with lathe shop and aluminum pressing department; rough machining of work pieces; dimensions: about 220x110 meters.

Locksmith shop, about 180x60 meters, further machining of parts coming from the forge.

Finishing department, about 180x60 meters.

Magazine, about 200x60 meters. (Goggles for welders, leather aprons, leather gloves and a large number of boxes with unknown contents were stored there.)

Carpenter shop, about 160x60 meters; 1.5x2-meter boxes were manufactured here.

Drying plant about 80x60 meters (storage of boards).

Materials storage, about 200x60 meters (storage of small tools).

Assembly hall, about 120x80 meters, where work pieces were packed.

Shipping department, about 60x80 meters, where the packed boxes were stored prior to shipping.

(2) Engine test plant, about 200x100 meters. Off limits to PWs; the noise of running engines, low- and high-pitched sounds, was heard from this plant day and night. Trucks delivered and picked up the engines. No details available on their origin or destination. Engines of various sizes were seen from that of a motorcycle motor to engines 2.5x1.5 meters large. No details available. A hydro-power plant was about one km north of the engine test plant. It supplied the entire plant with light and power.

(3) Magazine, no details available.
(4) Scrap dump, wrecked aircraft, mostly German
(5) Mess hall, off limits to German PWs
(6) Administration and boiler house
(7) Lathe department and three magazines. No details available.

d. Details on installations in the southern plant section. (This section was subdivided by a factory road leading to the airfield about three km south of the plant.)

(8) Forge
(9) Two about 80x50-meter engine shops
(10) Assembly hall, about 80x50 meters
(11) Four newly constructed workshops, each 100x80 meters, not in operation

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(12) Pump station
(13) Boiler house with 15 boilers, coal dump in front of it, conveyor belt
(14) Transformer station
(15) Administration
(16) Foundry, about 200x80 meters, with an about 300-meter loading ramp in front and a sand and coal dump nearby.
(17) Oil tank, about 15 meters high and 25 meters in diameter
(18) Administration
(19) Twelve four-story buildings, quartering facilities for plant employees

(3) Buildings:

With the exception of the magazines the buildings were brick structures, some with concrete floors. Most of the roofs were covered with tiles. Those of the magazines, pump station, and forge were covered with roofing felt while the foundry had a corrugated sheet iron roof.

5. Production

a. Forge

25X1 [redacted] two work pieces (Annex 3)

(1) Work piece 1 (sketch 3a of Annex 3), delivered from the foundry. Oval-shaped, similar to half an egg, 250 mm high and 500 mm in diameter, of steel. Outer side smooth and silvery, inner side with grooves converging to the interior; between these grooves a cross-shaped recess spread in a symmetrical way all over the interior. A hole, 75 mm in diameter, was bored into this work piece so that the middle axis of the piece ran perpendicularly through the center of the hole. An average of 50 such work pieces 25X1 was bored [redacted] within eight hours between March and late April 1948. In August and September 1949 this number had increased to an average of 200 to 250 units for an 8-hour shift. The total output of such work pieces per day (3 shifts) was estimated at 5,000 to 6,000. The bored work pieces were sent to the locksmith shop where a 2-mm groove was turned around their outer surface. Soviets and German PWs said that these work pieces were used for jet fighters.

(2) Work piece 2 (sketch 3b of Annex 3), delivered by the foundry. A flat steel disk, 30 mm thick and 300 mm in diameter, with bent turbine blades, 150 mm long, 30 mm thick. Also this work piece had a bore hole, 40 mm diameter, in the center. Daily output 5,000 to 6,000 units. The mentioned two work pieces were delivered in turn for further machining.

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The steel disks were, allegedly, also needed for jet fighters, to be fitted in the interior of the jets. Source said that he had no clear conception of the functions of these work pieces.

Twenty-five-liter aluminum cans were also pressed in this workshop and then delivered to the southern plant section; no details available on the output of these cans.

b. Engine shop.

25X1 [redacted] there was no production of engines. Old engines were overhauled and then tested in the test plant. The correctness of this statement was doubted [redacted] 25X1

6. Outgoing shipments

The manufactured work pieces were shipped by rail or road in the direction of Moscow. No details available on their destination. [redacted] engines and boxes with unknown contents being loaded. 25X1

7. Raw Materials

Iron and steel ingots arrived by rail and were unloaded at the foundry. The engines arrived mostly by truck from the southern plant section.

8. Power supply

Electric power was supplied by the power plant one km north of the engine test plant.

Steam power: One boiler house with four boilers for the northern plant section, one boiler house with 15 boilers for the southern plant section.

9. Security

Military patrols and factory police in civilian clothes.

10. Miscellaneous

25X1 a. [redacted] nothing of the employment of German engineers.

b. Soviet officers were frequently seen in the plant.

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25X1 [redacted] Comment

a. The layout of Plant No 500 is known from aerial photographs. The newly constructed buildings were mentioned in a previous report. *

b. The statement on the work force of the plant, based on hearsay, seems to be exaggerated (1,500 PWs and 10,000 Soviets). The total work force will probably not exceed 5,000 even after the expansion of the plant.

c. The purpose of the two work pieces (see Annex 3) cannot be determined. A light metal work piece similar to work piece 2 (sketch 3b) was described in a previous report *

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[redacted]

d. The recesses and grooves in work piece one indicate that it is exposed to thermal variations and is thus protected against warping. These work pieces are perhaps protective caps for the condensor. The stated daily output of 5,000 to 6,000 per day seems to be grossly exaggerated.

e. Work piece 2 also resembles previously reported pieces.* The attached sketch would indicate impeller compressor of a radial flow compressor.

f. It is assumed from available information covering the year of 1949 that the Moscow-Tushino Aircraft Engine Plant No 500 was converted to the production of jet engines. This was presumably the reason for the transfer of the Gerlach Diesel engine group to Kuibyshev in the fall of 1949. It is not quite clear whether axial flow or radial flow engines are now being built in Tushino.

3 Annexes: (1) Layout Sketch of Aircraft Engine Plant No. 500 in Moscow-Tushino

(2) Layout of Main Workshop of Plant No. 500 in Moscow-Tushino

(3) Work Pieces Machined in Plant No 500 in Moscow-Tushino

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